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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/712,511

11/13/2003

Takayuki Yajima

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EXAMINER

DEAN, RAYMOND S

ART UNIT

PAPER NUMBER

2618

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/712,511	<b>Applicant(s)</b> YAJIMA, TAKAYUKI	
	<b>Examiner</b> RAYMOND S. DEAN	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1 and 9 have been considered but are moot in view of the new ground(s) of rejection.

Kim (US 6,359,984) teaches a speaker section further comprising a first speaker provided at one end of a first housing and a second speaker provided at the other end of said housing (Figure 1, 2, Col.. 3 lines 54 – 57, one end of the housing is one side of the housing and the other end of the housing is the other side of the housing). Mizuta and Kim both teach a mobile device that enables a user to communicate when both housings are in the opened or closed state thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the two speaker concept of Kim as an alternative means for achieving the predictable result of communicating regardless of whether or not both housing are in the opened or closed state.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 5, 8 – 10, 13 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuta et al. (US 2003/0064758) in view of Kim (US 6,359,984)

Regarding Claim 1, Mizuta teaches a portable radiotelephone comprising: a first housing having at least a display section and a speaker section (Figure 4A, Section 0078); said display section having a first mode of operation and a second mode of operation (Section 0145 lines 16 – 20, one mode is the vertical mode and the other mode is the horizontal mode); a second housing having at least a main operation section and a microphone (Figure 4A, Section 0076); wherein both of said housings are openably and closably coupled together so that said main operation section is covered with said first housing in a closed state and is exposed outside in an opened state (Figures 9B – 9D), and said display section and said speaker section are exposed outside in both of the closed state and the opened state (Figures 9B – 9D), a communication control section for enabling a communication (Sections 0035, 0037, 0141 – 0142, the portable telephone can communicate in the open or closed mode, in the closed mode the secondary operation keys (207) are used to communicate).

Mizuta does not teach a first housing having a speaker section having a first mode of operation and a second mode of operation wherein said speaker section further comprises a first speaker provided at one end of said first housing and a second speaker provided at the other end of said first housing, and operating said speaker section in said first mode of operation in the closed state, and switching said speaker section from said first mode of operation to said second mode of operation when said

housings are brought into the opened state from the closed state while the communication is in progress.

Kim teaches a housing having a speaker section having a first mode of operation and a second mode of operation (Cols. 3 lines 54 – 55, 4 lines 19 – 25), wherein said speaker section further comprises a first speaker provided at one end of said first housing and a second speaker provided at the other end of said first housing (Figure 1, 2, Col.. 3 lines 54 – 57, one end of the housing is one side of the housing and the other end of the housing is the other side of the housing). Kim further teaches operating said speaker section in said first mode of operation in the closed state, and switching said speaker section from said first mode of operation to said second mode of operation when said housings are brought into the opened state from the closed state while the communication is in progress (Col. 4 lines 19 – 25, the output path can be switched to either speaker depending on the position of the flip or folder thus there can be a scenario when a user first starts a conversation when the flip or folder is closed and maintain said conversation when the flip or folder is open).

Mizuta and Kim both teach a mobile device that enables a user to communicate when both housings are in the opened or closed state thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the two speaker concept of Kim as an alternative means for communicating regardless of whether or not both housing are in the opened or closed state.

Regarding Claim 2, Mizuta in view of Kim teaches all of the claimed limitations recited in Claim 1. Mizuta further teaches at least one auxiliary operation section

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provided on other surface of said first and second housings than surfaces where said first and second housings are opposed each other in the closed state (Sections 0035, 0037), wherein said communication control section controls to connect a communication line when an incoming call is received and then said auxiliary operation section is operated in the closed state (Section 0142, the transmission and receiving of character data and graphics data requires incoming and outgoing data calls).

Regarding Claim 3, Mizuta in view of Kim teaches all of the claimed limitations recited in Claim 2. Mizuta further teaches a first speaker arranged on a surface provided with said display section of said first housing interposing said display section (Figure 4A, Section 0078), said first housing and said second housing are coupled each other to be rotated around a shaft which is provided in a direction of passing through the first and second housings (Figures 9B – 9D, Section 0075 lines 3 – 7, the biaxial hinge is the shaft), wherein in a mode of operation said communication control section controls said first speaker which is arranged furthest from said microphone to function as a receiver (Figure 9D, Section 0142, the speaker (203) is enabled). Kim further teaches wherein in said first mode of operation said communication control section controls said first speaker which is arranged furthest from said microphone to function as a receiver and disables said second speaker (Col. 4 lines 19 – 25), in said second mode of operation said communication control section controls said second speaker to function as a receiver, and disables said first speaker (Col. 4 lines 19 – 25).

Regarding Claim 4, Mizuta in view of Kim teaches all of the claimed limitations recited in Claim 1. Mizuta further teaches wherein said communication control section

controls said portable radiotelephone to disconnect the communication once the portable radiotelephone is brought into the closed state again while the communication is in progress in the opened state (Sections 0131, 0134).

Regarding Claim 5, Mizuta in view of Kim teaches all of the claimed limitations recited in Claim 1. Mizuta further teaches an opened/closed state detecting section for detecting the opened/closed state of said first housing and said second housing (Section 0095 lines 3 – 5).

Regarding Claim 8, Mizuta in view of Kim teaches all of the claimed limitations recited in Claim 1. Mizuta further teaches wherein said first housing and said second housing are coupled each other so as to be opened and closed by sliding motion (Section 0112 lines 6 – 8).

Regarding Claim 9, Mizuta teaches a portable radiotelephone comprising a second housing having a main operation section (Figure 4A, Section 0076), a first housing to be overlapped on said second housing so as to cover said main operation section (Figures 4A, 9D, Section 0078), and a coupling section which couples respective one ends of said first and second housings in such a manner that said first and second housings are relatively rotated around a shaft extending in a direction of overlapping (Figures 9B – 9D, Section 0075 lines 3 – 7, the biaxial hinge is the shaft), in which said portable radiotelephone is designed so as to be shifted between a closed state which said first and second housings are overlapped and an opened state which said first or second housing is rotated by 180 degree from this closed state (Figures 9B and 9D), a microphone is provided on the other end of said second housing (Figure 9B,

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microphone (103)), a first speaker is provided at one end of said first housing which is directed in same direction with a face thereof provided with said main operation section (Figure 9B), and a communication control section for controlling communication to perform in either said closed state and said opened state (Sections 0035, 0037, 0141 – 0142, the portable telephone can communicate in the open or closed mode, in the closed mode the secondary operation keys (207) are used to communicate).

Mizuta does not teach a first speaker is provided at one end of said first housing which is directed in same direction with a face thereof provided with said main operation section and a second speaker is provided at the other end of said first housing which is directed in same direction with a face thereof provided with said operation section, controlling operation of said first and second speaker based on whether said radiotelephone is in the opened state or in the closed state and continuing communication even after the portable radiotelephone is brought into the opened state from the closed state while the communication is in progress.

Kim teaches a first speaker is provided at one end of said first housing which is directed in same direction with a face thereof provided with said main operation section and a second speaker is provided at the other end of said first housing which is directed in same direction with a face thereof provided with said operation section (Figure 1, 2, Col. 3 lines 54 – 57, one end of the housing is one side of the housing and the other end of the housing is the other side of the housing, both speakers are provided in the same direction, which is the outward direction, as the main section), controlling operation of said first and second speaker based on whether said radiotelephone is in



the opened state or in the closed state and continuing communication even after the portable radiotelephone is brought into the opened state from the closed state while the communication is in progress ( Col. 4 lines 19 – 25, the output path can be switched to either speaker depending on the position of the flip or folder thus there can be a scenario when a user first starts a conversation when the flip or folder is closed and maintain said conversation when the flip or folder is open).

Mizuta and Kim both teach a mobile device that enables a user to communicate when both housings are in the opened or closed state thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the two speaker concept of Kim as an alternative means for communicating regardless of whether or not both housing are in the opened or closed state.

Regarding Claim 10, Mizuta in view of Kim teaches all of the claimed limitations recited in Claim 9. Kim further teaches wherein the communication is performed by means of said first speaker and said microphone in the closed state, and the communication is performed by means of said second speaker and said microphone in the opened state (Figures 1, 2, Col. 4 lines 19 – 25, microphone (126)).

Regarding Claim 13, Mizuta in view of Kim teaches all of the claimed limitations recited in Claim 9. Kim further teaches a communication control section for controlling functions of said first and second speakers and said microphone (Figures 1, 2, Col. 4 lines 19 – 25, microphone (126)); Mizuta further teaches at least one auxiliary operation section provided on other surface of said first and second housings than surfaces where said first and second housings are opposed each other in the closed

state (Sections 0035, 0037), wherein said communication control section controls to connect a communication line when an incoming call is received and then said auxiliary operation section is operated in the closed state (Section 0142, the transmission and receiving of character data and graphics data requires incoming and outgoing data calls). Kim further teaches a second speaker (Col. 2 lines 62 – 66).

Regarding Claim 14, Mizuta in view of Kim teaches all of the claimed limitations recited in Claim 9. Mizuta further teaches wherein said communication control section controls said portable radiotelephone to disconnect the communication once the portable radiotelephone is brought into the closed state again while the communication is in progress in the opened state (Sections 0131, 0134).

4. Claims 6, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuta et al. (US 2003/0064758) in view of Kim (US 6,359,984) (Kim1), as applied to Claims 3,9 above, and further in view of Kim (US 6,993,366)(Kim2)

Regarding Claims 6, 11, Mizuta in view of Kim teaches all of the claimed limitations recited in Claims 3, 9. Mizuta in view of Kim1 does not teach wherein said first and second speakers sound an incoming call sound when an incoming call is received.

Kim2 teaches wherein said first and second speakers sound an incoming call sound when an incoming call is received (Col. 4 lines 17 – 24, first and second speakers are enabled thus said speakers will sound an incoming call sound when there is an incoming call).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the speakers of Mizuta in view of Kim1 with the above speaker concept of Kim2 for the purpose of allowing a user to hold a smooth conversation regardless of the direction in which said user is holding said portable phone as taught by Kim2.

5. Claims 7, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuta et al. (US 2003/0064758) in view of Kim (US 6,359,984) (Kim1) in view of Kim (US 6,993,366) (Kim2), as applied to Claims 6, 11 above, and further in view of Masamura (US 6,819,939).

Regarding Claims 7, 12, Mizuta in view of Kim1 and in further view of Kim2 teaches all of the claimed limitations recited in Claims 6, 11. Mizuta in view of Kim1 and in further view of Kim2 does not teach wherein each of said first and second speakers independently sounds when an incoming call is received, to make stereo effects.

Masamura teaches first and second speakers that independently produce sound to make stereo effects (Col. 2 lines 29 – 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the portable phone of Mizuta in view of Kim1 and in further view of Kim2 with the stereo speaker configuration of Masamura for the purpose of creating a portable phone that realizes stereophonic sound reproduction without impairing the suitability of said phone thus creating a more versatile phone.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuta et al. (US 2003/0064758) in view of Kim (US 6,359,984), as applied to Claim 9 above, and further in view of Babasaki et al. (US 2002/0198017).

Regarding Claim 15, Mizuta in view of Kim teaches all of the claimed limitations recited in Claim 9. Mizuta in view of Kim does not teach a gain adjusting section for adjusting sensitivity of said microphone, wherein said communication control section controls said gain adjusting section to increase gain of said microphone during the communication in the closed state to be higher than gain of said microphone during the communication in the opened state.

Babasaki teaches a teach a gain adjusting section for adjusting sensitivity of a microphone, wherein said communication control section controls said gain adjusting section to increase gain of said microphone during the communication in a first state to be higher than gain of said microphone during the communication in a second state (Section 0048 lines 7 – 13, one state is the very soft mode and another state is the very loud mode).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the portable phone of Mizuta in view of Kim with the gain adjusting circuitry of Babasaki for the purpose of enabling a user to effectively communicate on the phone in an environment in which said user must speak softly so as not to disturb people nearby as taught by Babasaki.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAYMOND S. DEAN whose telephone number is (571)272-7877. The examiner can normally be reached on Monday-Friday 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Raymond S Dean/  
Primary Examiner, Art Unit 2618

Raymond S. Dean  
March 18, 2008